

Remarks

Claims 1-13, 15-22 and 26-32 are pending in the application. Claims 1-12 and 26-29 have been withdrawn and claims 14 and 23-25 have been canceled. Claim 13 has been amended and new claims 30-32 have been added.

Claim Rejections Under 35 U.S.C. §102(b)

Claims 13-22 have been rejected under 35 U.S.C. §102(b) as being anticipated by Yamada et al. (US 2002/0190814). Applicants respectfully traverse the rejection. Claim 13 has been amended to recite that the substrate is insulating and is made of any one of (i) a monocrystalline material, (ii) a polycrystalline material, and (iii) an amorphous material. New claim 30, which depends from 13, recites that the monocrystalline material is selected from silicon, sapphire, rock crystal, magnesium oxide, lithium niobate and lithium tantalite. New claim 31, which also depends from claim 13, recites that the polycrystalline material is selected from aluminum oxide, silicon nitride, silicon carbide and zirconium oxide. New claim 32, which depends from claim 13, recites that the amorphous material is selected from glass, metallic glass and carbon. Support for the amendment to claim 1 and for new claims 30-32 may be found in original claim 1; paragraphs [0082] to [0083] of the PCT specification (corresponding to page 25, lines 5-18 of the English language specification); and paragraphs [0073] to [0074] of the PCT specification (corresponding to page 22, line 17 to page 23, line 5 of the English language specification).

The Examiner contends that Yamada et al. discloses the claimed laminate structure, and asserts that the electrode 45, the piezoelectric layer 42, the electrode 44 and the piezoelectric layer 41 disclosed in Fig. 2 of Yamada et al. respectively correspond to the substrate, the first wurtzite crystalline layer, the functional material layer, and the second wurtzite crystalline layer recited in claim 13 of the present application.

However, when the arrangement of Fig. 2 of Yamada et al. is compared with the arrangement of the laminate recited in claim 13 of the present application, as amended, the lowermost substrate of the present application serves as a base of the laminate, but does not serve as an electrode. Moreover, in the amended claim 13, the laminate

includes, as the substrate, a “substrate which is insulating and which is made of any one of (i) a monocrystalline material, (ii) a polycrystalline material, and (iii) an amorphous material”. In contrast, the electrode 45 disclosed in Fig. 2 of Yamada et al. serves as an electrode as its name suggests. Therefore, it is apparent that the electrode 45 is electrically conductive. Moreover, Yamada et al. teaches, in paragraph [0045], that the lower electrode is made of Au, Pt, W or Mo.

As is clear from the above description, the substrate of the amended claim 13 of the present invention is completely different from the electrode 45 of Fig. 2 of Yamada et al.

Since, according to the present invention, the first wurtzite crystalline layer, the functional material layer and the second wurtzite crystalline layer being stacked on or above the substrate in this order, it is possible to improve the crystallinity and crystalline orientation of the second wurtzite crystalline layer (see paragraph [0024] of the PCT specification, corresponding to page 9, line 20 to page 10, line 5 of the English language specification). This allows the laminate of the present invention to be suitably applied as an electronic component material having a piezoelectric property.

Because Yamada et al. does not anticipate the laminate of claims 13 and 15-22, the rejection under 35 U.S.C. §102(b) should be withdrawn.

Conclusion

Accordingly, claims 13, 15-22 and 30-32 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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